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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,238	10/29/2001	Kazuhiko Honda	101749.56391US	8692

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Crowell & Moring LLP  
Intellectual Property Group  
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Washington, DC 20044-4300

EXAMINER

PHAM, HAI CHI

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/053,238

Applicant(s)

HONDA ET AL.

Examiner

Hai C. Pham

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 14-16, 20-22, 25-28 and 30-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-16, 20 and 30-37 is/are allowed.
- 6) ☒ Claim(s) 21, 22, 25-28 and 38-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07/05/05, 08/16/05, 08/19/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Allowable Subject Matter***

1. The indicated allowability of claims 21 and 26 is withdrawn in view of the newly discovered reference to Kobayashi et al. (JP 11-161768). Rejections based on the newly cited reference follow.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
3. Claims 25, 30-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

#### Claim 25:

- Claim 25, which is dependent from claim 26, recites the following limitation  
“further comprising an intermediate layer provided between the first layer and the visible light characteristic changing layer”, which appears to be unclear because the relative position of the intermediate layer with respect to the light scattering layer is unknown. Claim 25 will be treated as claim 22, e.g., the intermediate layer and the light scattering layer are the same layer, until the Applicants say otherwise.

#### Claim 30:

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- The limitation “at least one side surface of the visible characteristic changing layer has a rough texture” appears to be misleading and is not supported by the specification, which does not disclose that only one surface of the visible characteristic changing layer as having a rough texture. Such rough texture would be formed as a plurality of dots or voids, which extend from one end to the other end of the surface layer.

Claim 31:

- Similarly, “the at least one rough side surface faces the one reflective layer” appears to be misleading and is not supported by the disclosure for the same reason stated above.

Claim 32:

- Also “the at least one rough side surface faces away from the one reflective layer” appears to be misleading and is not supported by the disclosure for the same reason stated above.

Claims 33-37 are dependent from claim 30 above, and are therefore indefinite.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 21-22, 25-28 and 38-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaka et al. (U.S. 6,329,035) in view of Kobayashi et al. (JP 11-161768).

Iwasaki et al. discloses an optical disk having a visible light characteristic changing layer which changes a visible characteristic of a light by exposure to a laser beam having entered from a label surface side of the optical disk (reversible thermosensitive recording layer 7, which changes transparency or color tone by heat from a laser beam), and an intermediate layer (6) being interposed between a first reflection layer (5) of the optical disc and the visible light characteristic changing layer.

However, Iwasaki et al. fails to teach the intermediate layer being a light scattering layer, which is translucence and has a light scattering characteristic, and a protective layer.

Kobayashi et al. discloses an optical disc having a reversible thermosensitive layer (21), a reflecting layer (23) and an intermediate layer (22) disposed between the reversible thermosensitive layer and the reflecting layer, the intermediate layer having a diffusion translucency, and a protective layer (e.g., base layer 20) (see Abstract).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the intermediate layer of the optical disc of Iwasaki et al. as having a translucency and a light scattering characteristic as taught by Kobayashi et al. The motivation for doing so would have been to improve the transparency and non-transparency conditions of the reversible thermosensitive layer.

Iwasaki et al. further teaches:

- a buffer layer (intermediate layer 6) provided on the first reflection layer (5), and a second reflection layer (a second reflection layer is preferably provided on the back side of the reversible thermosensitive recording layer 7 for enhancing the contrast) (col. 12, lines 26-34) provided between the buffer layer and the visible light characteristic changing layer (7),
- a second substrate (substrate 11, Fig. 7) provided on the first reflection layer (7), and a second reflection layer provided on the second substrate (a second reflection layer is preferably provided on the back side of the reversible thermosensitive recording layer 7 for enhancing the contrast) (col. 12, lines 26-34).
- The visible light characteristic changing layer is a color-changing layer which undergoes coloring or change in color or hue by exposure of the laser beam (reversible thermosensitive recording layer 7, which changes transparency or color tone by heat from a laser beam),
- The color-changing layer is a heat sensitive layer (reversible thermosensitive recording layer 7, which changes color tone by heat from a laser beam) and two layers (reversible thermosensitive recording layer 7 and adhesive layer 9) fused or mixed together by exposure to the laser beam so as to change visible-light characteristic.

***Allowable Subject Matter***

6. Claims 14-16, 20 and 30-37 are allowed.

7. The following is an examiner's statement of reasons for allowance: the primary reason for the indication of the allowability of claim 30 is the inclusion therein, in combination as currently claimed, of the limitation "wherein at least one side surface of the visible light characteristic changing layer has a rough texture", which is not found taught by the prior art of record considered alone or in combination.

Claims 31-37 are allowable because they are dependent from claim 30 above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 21-22, 25-28 and 38-55 have been considered but are moot in view of the new grounds of rejection as presented in this Office action.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on (571) 272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HAI PHAM  
PRIMARY EXAMINER

September 29, 2005